Plant Variety Protection

ricaltural Marketing Service



7400077

### THE UNITED SHATES OF AMERICA

Rice Researchers, Inc.

Wilhereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF SEVENCEUM YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

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RICE

'Kokubelle'

In Lestimony Energot, I have hereunto sets my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 17 th day of October in the year of our Lord one thousand nine hundred and seventy-five

Karl L But

Secretary of Agriculture

(DATE)

## UNITED STATES DEPARTMENT OF AGRICULTURE CONSUMER AND MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

FORM APPROVED OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

ANSTRUCTIONS: See Reverse.											
1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	· ·	FOR OFFICIAL USE ONLY								
Kokubelle	Rice		PVPO NUMBER	7077							
3. GENUS AND SPECIES NAME	4. FAMILY NAME (Bo	tanical)	FILING DATE	TIME							
Oryza Sativa	Graminae 5. DATE OF DETERM	4INATION	3.13.74	10:00							
	December		FEE RECEIVED	CHARGES							
6. NAME OF APPLICANT(S)		nd No. or R.F.D. No.,	City, State, and ZIP	B. TELEPHONE AREA							
Rice Researchers, Inc.	P.O. Box	CODE AND NUMBER									
,	Woodland,										
9. IF THE NAMED APPLICANT IS NOT A PER ORGANIZATION: (Corporation, partnership, a	SON, FORM OF association, etc.)	10. STATE OF INCOR	PORATION	11. DATE OF INCOR- PORATION							
Corporation		Californi	1968								
12. Name and mailing address of applica	nt representative(s	), if any, to serve i	n this application as								
		•	• •	~ <u>`</u> -							
XSX Arthur H. Williams		•									
Rt. 2, Box 320											
Chico, California 95920	4										
chico, carriornia 95920	J										
13. CHECK BOX BELOW FOR EACH ATTACHA	AENT SUBMITTED:	<del></del>	····· ·								
X 12A. Exhibit A, Origin and Breed X 12B. Exhibit B, Botanical Descr	iption of the Variet	у	2 52, P.L. 91-577)	**************************************							
🔀 12c. Exhibit C, Objective Descri	iption of the Variety	,									
🗓 120. Exhibit D, Data Indicative	of Novelty .										
[X] 12E, Exhibit E, Statement of the	Basis of Applicant	's Ownership	·								
The applicant declares that a viable sa	mple of basic seed	of this variety will	be deposited upon r	equest before issu-							
ance of a certificate and will be replen (See Section 52, P.L. 91-577).	ished periodically	in accordance with	such regulations as	may be applicable.							
14A. Does the applicant(s) specify that (See Section 83(a), P.L. 91-577) (1)	seed of this variety	be sold by variety	name only as a clas	s of certified seed?							
14B. Does the applicant(s) specify that			<u> </u>	ations of production							
limited as to number of generations		beyond breede									
	YES NO										
Applicant is informed that false represe	entation herein can	jeopardize protection	on and result in pena	lties.							
The undersigned applicant(s) of this se	xually-reproduced n	novel plant variety l	believes that the var	iety is distinct.							
uniform, and stable as required in Secti	on 41 and is entitle	ed to protection und	er the provisions of	Section 42 of the							
Plant Variety Protection Act (P.L. 91-5	577).	//. //	,	.ú							
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2-10-7d	<u>-</u> · .	Mithur	15Wil	lam							
(UATE)		(SIG	NATURE OF APPLICAN	ITI							

(SIGNATURE OF APPLICANT)

Kokubelle

Exhibit A

Origin and Breeding History

Kokubelle originated from a hand pollinated cross between Kokuho Rose and Bluebelle.

Selections were made on the basis of Kokuho Rose vigor and Bluebelle grain type. At the present time there has not been a successful long grain rice grown in California.

From the F5 generation, one pure line having the characteristics desired was increased for field planting and quality testing. The present selection has the favorable long grain cooking characteristics with the very favorable Kokuho Rose flavor.

From letter of January 14, 1975:

No variants have been found in Kokubelle.

3/28/75

Kokubelle

Exhibit B

Botanical Description

Kokubelle is a long grain variety. It is stiff strawed and mature in about 145 days. The plant type more resembles Bluebelle.

The grain shape is long and slender and boat shaped. The second foliar leaf is long with a large angle, and the color is medium green.

The culm is stiff, medium long, and fairly erect. The flag leaf is broad, long, and upright. The culm, leaves, and grain are glabyrous.

The plant tillers well, and the grain is awnless.

The panicles are long and lax. The lemma and palea at maturity are straw colored.

Application No. 7400077 'Kokubelle'

Exhibit D

'Kokubelle' most closely resembles 'Bluebelle' but
'Kokubelle' has straw versus gold colored hulls and straw
versus light purple colored apiculus and has the cooked
grain flavor of 'Kokuho Rose.'

Within Hewilliam

Kolembelle FORM\*GR:470-17 ~ (1-2-73)

Color:

SHEATH (Outside)

SHEATH (Inside)

SHEATH (Seedling)

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# UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

EXHIBIT C (Rice)

E

OBJECTIVE DESCRIPTION OF VARIETY

REFERENCES: See Reverse.	RICE (ORYZA SATIVA)	
NAME OF APPLICANT(S)		FOR OFFICIAL USE ONLY
Rice Researchers, Inc.		PVPO NUMBER
	end ZIP Code)	1 7400077
P.O. Box 652	·	VARIETY NAME OR TEMPORARY DESIGNATION
Woodland, California 95695		KOKYBELLE
Place the appropriate number that describes the Place a zero in first box (c·s· 0 8 9 or 0 9	varietal character of this variety in the property of the property of the variety	ne boxes below. or 9 or less.
1. MATURITY (Seeding to 50% Heading):		
LOCATION Sacramento Valleye	RAGE DATE SEEDED April 25	<u>– May 5</u>
1 = VERY EARLY (86 days or less) 3 = MIDSEASON (101 - 115)	2 = EARLY (86 - 100) 4 = LATE (115 - or more)	0 9 5 NUMBER OF DAYS
1 2 NO. OF DAYS EARLIER THAN 5	1 = BELLE PATNA 2 = BLUE	BELLE 3 = NATO
NO. OF DAYS LATER THAN	4 = STARBONNET 5 = CALR	OSE 6 = REXORO
2. PLANT HABIT (Tiller Angle from Perpendicular a	nt the Early Jointing Stage):	
1 = SPREADING (more than 60°) 2 = IN	NTERMEDIATE 3 = ERECT (less than	30°)
3. STEMS (Full Heading):		
1 0 0 CM. TALL (Sail level to tip of extend	ded panicle on main culm)	
2 0 cm. shorter than	1 = BELLE PATNA 2 = BLUE	BELLE 3 = NATO
CM. TALLER THAN	4 = STARBONNET 5 = CALR	OSE 6 = REXORO
0 4 NUMBER OF NODES Elongate		
1 INTERNODE COLOR (Outside) 1 = L		GOLD
<del></del>		LIGHT PURPLE
SEPTUM COLOR (Inside Node) 7 = PI	URPLE 8 = DARK PURPLE	9 = OTHER (Specify)
Tillering Ability (number of culms): 1 = 10	) O O R LESS (Belle Patna) 2 = 11 - 20 (Blo	uebonnet) 3 = ABOVE 20 (Century Patna)
2 Strength: 1 = STURDY (Starbonnet)	2 = INTERMEDIATE (Belle Patna) 3 =	WEAK
4. LEAF BLADE (First Leaf Below Flay Leaf):	· · · · · · · · · · · · · · · · · · ·	-
The state of the s		
3 6 CM. LENGTH . 1	4 MM. WIDTH	
2 Color: 1 = PALE GREEN (Starbonnet) 4 = PURPLE		= DARK GREEN (Calrose) = OTHER (Specify)
1 = GLABROUS 2 = INTERM 3 = PUBESCENT	MEDIATE 2 Flag Leaf Angle	1 = HORIZONAL 2 = ASCENDING 3 = FRECT
3 0 CM. LENGTH OF FLAG LEAF (Booting S	Stage) 17 MM. WIDT	H (widest point) OF FLAG LEAF (Booting Stage)
5. LEAF SHEATH (First Leaf Below Flag Leaf):		- No. 1
3 Ligule Length: 1 = NONE 2 = 20 MM. O	OR LESS 3 = 21 - 34 MM. 4 = MORI	E THAN 34 MM.

COLLAR

LIGULE

AURICLE

2

1 = COLOBLESS

 $\mathbf{4} = \mathbf{P} \{ (0), \mathbf{PLE} \}$ 

1 GREEN 3 = RED

5 OTHER (Specify)

See Remgine

### 7400077

Kokubelle

Exhibit D Revised

Data Indicative of Novelty

Kokubelle is a long grain variety resembling Blubelle in plant type and grain characteristics. The geading period for Kokubelle is much more narrow than Bluebelle. Bluebelle heads over a 30 day period in California where as Kokubelle's heading period is about 8-10 days. Kokubelle matures earlier than the midseason California varieties Caloto and Calrose by about 10 days. Kokubelle also has very strong straw which resists lodging. Kokubelle is comparitively weak at seedling stage (first 21 days). Careful water depth management is necessary to get satisfactory stands. Kokubelle is a pure line selection, therefore no variants are expected.

#### 7400077

**Kokubelle** 

Exhibit D

Data Indicative of Novelty

Kokubelle will probably be the first successful long grain variety in California. It has southern long grain characteristics yet matures like Japanese rice in California. It has outstanding cooking quality, tasting very much like Kokuho Rose which has been the best in California for the past ten years.

Kokubelle, however, does not have seedling vigor comparable to the Japanese varieties. Therefore, water depth during the seedling stage is very critical. Water depth of 2 - 4 inches is ideal. Deeper water will result in poorer stands.

Kokubelle

Exhibit E

Statement of the Basis of Applicant's Ownership

Breeder is employed by the applicant.

Rice Researchers Inc. 15 owner 7/23/74

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### UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY RICE (ORYZA SATIVA) REFEREN

ICES: See Reverse,	RICE (ORYZA SATIVA
APPLICANT(S)	 <del></del>

NAME OF APPLICANTS	FOR OFFICIAL USE ONLY
Rice Researchers, Inc. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	PVPO NUMBER 7400077
P.O. Box 652	VARIETY NAME OR TEMPORARY DESIGNATION
Woodland, California 95695	KOKUBELLE
Place the appropriate number that describes the varietal character of this variety in the	_
Place a zero in first box (e-g- 0 8 9 or 0 9 ) when number is either 99 or less or	9 or less.
1. MATURITY (Seeding to 50% Heading):	
LOCATION Sacramento Valley ERAGE DATE SEEDED April 25 -	May 5
2 Season: 1 = VERY EARLY (86 days or less) 2 = EARLY (86 - 100) 4 = LATE (115 - or more)	0 9 5 NUMBER OF DAYS
1 2 NO. OF DAYS EARLIER THAN 5	ELLE 3 = NATO
NO. OF DAYS LATER THAN 4 = STARBONNET 5 = CALROS	SE 6 = REXORO
2. PLANT HABIT (Tiller Angle from Perpendicular at the Early Jointing Stage):	
1 = SPREADING (more than 60°) 2 = INTERMEDIATE 3 = ERECT (less than 30°)	o°)
3. STEMS (Full Heading):	
1 0 0 CM. TALL (Soil level to tip of extended panicle on main culm)	
2 0 cm. SHORTER THAN 5 ) 1 = BELLE PATNA 2 = BLUEBE	ELLE 3 = NATO
CM. TALLER THAN 4 = STARBONNET 5 = CALRO	SE 6 = REXORO
CM. TABLER THAN	,
0 4 NUMBER OF NODES Elongate	
4 INTERNODE COLOR (Outside) 1 = LIGHT YELLOW 2 = CREAM 3 = G	
SEPTUM COLOR (Inside Node)  4 = GREEN 5 = REDDISH 6 = L 7 = PURPLE 8 = DARK PURPLE	IGHT PURPLE 9 = OTHER (Specify)
Tillering Ability (number of culms): 1 = 10 OR LESS (Belle Patna) 2 = 11 - 20 (Blue	bonnet) 3 = ABOVE 20 (Century Patna)
2 Strength: 1 = STURDY (Starbonnet) 2 = INTERMEDIATE (Belle Patna) 3 = V	NEAK
4. LEAF BLADE (First Leaf Below Flay Leaf):	
3 6 CM. LENGTH . 1 4 MM. WIDTH	
	DARK GREEN (Calrose) OTHER (Specify)
Pubescence: 1 = GLABROUS 2 = INTERMEDIATE 2 Flag Leaf Angle:	1 = HORIZONAL 2 = ASCENDING 3 = 8 RECT
3 0 CM. LENGTH OF FLAG LEAF (Booting Stage) 1 7 MM. WIDTH	(widest point) OF FLAG LEAF (Booting Stage)
5. LEAF SHEATH (First Leaf Below Flag Leaf):	
3 Ligule Length: 1 - NONE 2 = 20 MM. OR LESS 3 = 21 - 34 MM. 4 = MORE	THAN 34 MM.
Color:	
2 SHEATH (Outside) 2 COLLAR 1 = CC LORLESS	S GREEN 3 = RED
2 SHEATH (Inside) 2 LIGULE	. GREEN 3-RED . 5 OTHER (Specify)
2 SHEATH (Seedling)	· Course (obsens)

12. RESISTANCE TO: Salinity:

Alkalinity:

13. RESPONSE TO PHOTOPERIOD:

1 = LOW (Bluebonnet)

1 = LOW (Bluebelle)

1 = NON-SENSITIVE (Belle Patna)

2 = MEDIUM (Blue Rose)

2 = WEAKLY SENSITIVE (Blue Rose)

2 = MEDIUM (Dawn)

3 = HIGH

3 = HIGH (Arkrose)

3 = STRONGLY SENSITIVE (Caloro)

3

(0 = Not Tested ;, 1	= Susc	eptible	J, 2:		can				<u>,     /          /                     </u>	nder R		este	IE IE	<u> </u>	below 3/74 IG	. مديد	11	प्र				
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. INSECT RESISTA	NCE (	0 = N	ot Tes	sted;	1=1	Susce	ptible	); 2 = .	Resista	ant)					1							
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RICE MIDGE					[	7	STEN	и воп	ER					٥	STO	NK BI	UG					
SWARM CATER					<u>[</u>	<del>-</del>			EEVIL					0	οτι	HER (	(Spe	cify.	) 	_		_
7. INDICATE A VAF	RIETY	WHIC	H M	OST	CLO	SELY	/ RES	EMBL	ES Th	AT SL	IRWI.	LIED:	- <u></u>				N A 1	MF	OF V	VARIE	TY	
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Leaf Angle		ЬВ	عدر [3	ebe	116	e				-		Qualit & Proc.		itv	-				<u>lle</u>			_
Leaf Color		Bluebelle IG AVERAGE DATA FOR SUBMITTED AN						_						لت	п <del>С</del> л	<u>. 12</u>	<del> د</del>			_		
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lulled Rice - Dry W	· t.	ivilli	-u r(1	11	- 1.2	.,,10				EREN					<del></del>							-

- 2. J. G. Atkins, et al, 1967. An International Sct of Rice Varieties for Differentiating Race of Pyricularia Oryzae. Phytopath. 57:297-301.
- 3. Te-Tzu Chang, 1965. The Morphology and Varietal Characteristics of the Rice Plant. IRRI Los Banos, Philippines Tech.
  Bulletin 4.
- 4. K. C. Ling and S. H. Ou, 1969. Standardization of the International Race Numbers of Pyricularia Oryzae. Phytopath. 59:339-342.
- 5. B. D. Webb et al, 1968. Characteristics of Rice Varietics in the USDA Collection. Crop Sci. 8:361-365.
- 6. Nickerson's or any recognized color fan may be used to determine plant colors of the described variety.

COMMENTS: